

LARRY V. LAKASHVILI
Application No. Not yet assigned
Page 2

IN THE CLAIMS:

Please substitute the following amended, clean versions of the indicated claims
(a marked-up version of the changes to the claims is attached to this Amendment):

3. (amended) The method of either claim 1, wherein pressure pulsations are produced by subjecting the mammal to stimulating impulses of electrical energy at a position of the peripheral vascular system at which a smooth muscle or a skeletal muscle is present, excluding the heart and wherein the parameter varied is selected from the group comprising: - the impulse delay before the start of counterpulsation, said impulse delay being the time difference between the Q-wave end of a QRS heart rhythm signal and the start of a train of stimulating impulses generating pressure pulsation, - the train duration, i.e. the time between the start and end of a train of stimulating impulses within one QRS heart rhythm, - the impulse width, i.e. the time between the start and end of each stimulating impulse of each said train, - the frequency of the impulses forming a train of stimulating impulses generating pressure pulsation, - the amplitude of stimulating impulses generating pressure pulsation, - the impulse form, being the geometric form of the stimulating impulse resulting when an amplitude of the impulse is displayed over a full impulse duration, - the impulse mode, being the relationship between positive and negative half cycles of each said electrical stimulating impulse.

4. (amended) A method in accordance with claim 1, when used to treat a human being to achieve benefits in one or more fields selected from the following group: promotion of fitness and wellness, physical training for sport, aesthetic medicine, including any kind of desired body shaping and/or tissue changes, e.g. due to body fat burning (lipolysis), fluid drainage and tissue and muscle growth and/or reduction as well as associated skin changes, curative medicine, including invasive and non-invasive methods, cosmetic medicine.

5. (amended) A method in accordance with claim 1, wherein said method is carried out in the field of curative medicine, or for the prevention of disease and/or rehabilitation in one of the following fields: for anesthesiology, for example to reduce the risk

LARRY V. LAKASHVILI
Application No. Not yet assigned
Page 3

PATENT

of acute heart failure, for cardiology, for example to remedy tachycardia, ischemic heart disease, cardiomyopathy, hypertension, heart failure, valvular pathology, for angiology, for example for lymph-venous and arterial insufficiencies, for orthopaedy and neurology, for example to remedy hypotrophy and atrophy of muscles, for pain reduction including anti-pain TENS-treatment for any kind of pathology in the body support and motion system of a human being, for example for osteochondrosis, for urology and proctology, for example for sphincter insufficiencies, for gynaecology and sexology, for example for the treatment of dilatatio vaginae, descendus uteri, adnexitis, amenorea, frigidity, for endocrinology, for example for adipositas partialis, hypomastia, for surgery, for example for diastasis musculi recti abdominis, decubiras, for cosmic medicine, for example to preserve muscle tone of astronauts.

12. (amended) Apparatus in accordance with claim 10, wherein said pulse sensor comprises a belt worn around a patient's chest and wherein at least one transmitter is provided for transmitting signals derived from said pulse sensor to said means for producing pressure pulsations.

13. (amended) Apparatus in accordance with claim 1, wherein said means for producing pressure pulsations in the peripheral vascular system comprises a pulse generator for generating electrical signals and means for applying said electrical signals as stimulating signals to one or more skeletal or smooth muscles associated with said peripheral vascular system, whereby to produce said pressure pulsations in said peripheral vascular system.

17. (amended) Apparatus in accordance with claim 1 and further comprising a blood pressure measuring instrument for measuring a blood pressure of said mammal or other living organism.

19. (amended) Apparatus in accordance with claim 1 and further comprising a safety means, said safety means being adapted to receive respective signals corresponding to said actual pulse rate and to one or more actual blood pressure values and to compare said actual pulse rate or said one or more blood pressure values with a respective preset values or values prevailing at the start of said treatment and to issue a warning signal or shut off said apparatus when at least one of said actual pulse rate and one or more actual blood

pressure values exceeds a respective predetermined limit or a prevailing value at the start of said treatment.

22. (amended) Apparatus in accordance with claim 20, wherein means are also provided for varying at least one said pulse form, said pulse width and said pulse mode.

24. (amended) Apparatus in accordance with claim 20, wherein said pulse generator comprises a control unit and a memory for storing control settings of said control unit for the control of said pulse generator and wherein input means are provided permitting the inputting of control settings relating to at least said pulse delay, said train duration, said pulse frequency and said pulse amplitude.

32. (amended) Apparatus in accordance with claim 30, wherein said cardiostimulator is adapted to transmit a wireless signal corresponding to said heart rhythm and wherein said means for producing pressure pulsations in the peripheral vascular system is a muscle stimulator separate from said cardiostimulator and provided with a wireless receiver for receiving wireless signals transmitted by said cardiostimulator.

34. (amended) Apparatus in accordance with claim 1 when incorporated into at least one article of clothing, e.g. a brassiere, or a pair of panties.

36. (amended) Apparatus in accordance with claim 1, wherein said means for measuring the heart rhythm produces a heart rhythm signal, wherein means is provided for producing a systolic blood pressure signal, and wherein said means for producing pressure pulsations comprises a pulse generator having a controller, said controller being adapted to receive said heart rhythm signal and said systolic pressure signal and to control the pulse generator using a signal formed by combination of said heart rhythm signal and said systolic blood pressure signal.

38. (amended) Apparatus in accordance with claim 1 and further comprising a safety means, said safety means comprising means for monitoring at least one parameter of the means used for producing pressure pulsations in the peripheral vascular system and for comparing said parameter with at least one predetermined value limit and

LARRY V. LARSEN NASHVILLE
Application No. Not yet assigned
Page 5

PATENT

means for discontinuing the treatment or triggering an alarm should the monitored parameter exceed or fall short of said predetermined value limit.

40. (amended) Apparatus in accordance with claim 1 and comprising gating means for defining a window between successive R-R peaks within which sensed signals are inhibited from triggering stimulation signals, and wherein said gating means is preferably adjustable to vary the width and/or position of the window relative to the R-R cycle.

41. (amended) Apparatus in accordance with claim 1 and including timing means for triggering a stimulation signal after a delay following each R-peak corresponding to a minimum delay plus an offset delay, adaptive means for varying said offset delay in steps while monitoring, optionally over a plurality of heart beat cycles, one of the heart beat rhythm and the product of the heart beat rhythm and the systolic blood pressure and for identifying the offset delay which results in the lowest heart beat or lowest heart load and for subsequently operating the apparatus with this offset delay for the patient involved.

42. (amended) Apparatus in accordance with claim 1 in which the pressure pulsations in the peripheral vascular system are initiated by stimulation signals triggered in a time window lying within a range of 5 % of the R-R path before the end of the T-wave and 45 % of the R-R path after the end of the T-wave.